

DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AIR QUALITY CONTROL CONSTRUCTION PERMIT

Permit No.: 416CP01
Project No.: X-203

Proposed Date: December 23, 2004

The Department of Environmental Conservation (Department), under the authority of AS 46.03, AS 46.14, AS 46.40, 6 AAC 50, 18 AAC 15, and 18 AAC 50.315, issues an Air Quality Control Construction Permit to:

Owner/Operator: **Icicle Seafoods Corporation**
4019 21st Ave West
Seattle, Wa. 98199

Permittee: Same as Owner

Stationary Source: **Northern Victor Seafood Processing Facility**

Physical Location: Latitude: 53° 44' North; Longitude 166° 18' West

The Department authorizes Icicle Seafoods Corp. to burn fish oil/diesel blended fuel.

This permit satisfies the obligation of the owner and operator to obtain a construction permit as set out in AS 46.14.130. As required by AS 46.14.120, the Permittee shall comply with the terms and conditions of this construction permit.

This stationary source is classified under 18 AAC 50.300(b)(1)(A) for construction permits. This permit imposes restrictions requested in accordance with 18 AAC 50.305(a)(3) and 18 AAC 50.305(a)(4) to revise terms and conditions of an existing permit.

This stationary source is classified under 18 AAC 50.325(b)(1), 18 AAC 50.325(b)(2), 18 AAC 50.325(b)(3), and 18 AAC 50.325(c) for operating permits.

John F. Kuterbach, Manager
Air Permits Program

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List of Abbreviations Used in this Permit

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
AS	Alaska Statutes
ASTM	American Society of Testing and Materials
bhp	brake horsepower or boiler horsepower ¹
CEMS	Continuous Emission Monitoring System
CET	Cumulative Equivalent Total
C.F.R.	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
dscf	Dry standard cubic feet
EPA	US Environmental Protection Agency
gr./dscf	grain per dry standard cubic feet (1 pound = 7000 grains)
GPH	gallons per hour
HHV	Higher heating value
ID	Source Identification Number
kW	kilowatts
MACT	Maximum Achievable Control Technology
Mlb	thousand pounds
MMBtu	Million British Thermal Units
NAICS	North American Industry Classification System
NESHAPs	Federal National Emission Standards for Hazardous Air Pollutants [as defined in 40 CFR 61]
NSPS	Federal New Source Performance Standards [as defined in 40 CFR 60]
ppm	Parts per million
ppmv	Parts per million volume
PS	Performance specification
PSD	Prevention of Significant Deterioration
RM	Reference Method
SIC	Standard Industrial Classification
TPH	Tons per hour
TPY	Tons per year
Wt%	weight percent

Pollutants

CO	Carbon Monoxide
HAPS	Hazardous Air Pollutants [as defined in AS 46.14.990(14)]
H ₂ S	Hydrogen Sulfide
NO _x	Oxides of Nitrogen
PM-10	Particulate Matter [as defined in 18 AAC 50.990(70)]
SO ₂	Sulfur Dioxide
VOC	Volatile Organic Compound [as defined in 18 AAC 50.990(103)]

¹ 1 boiler horsepower = 33,472 Btu-fuel per hp-hr divided by the boiler's efficiency. Approximately 7000 Btu-fuel per bhp-hr is required for an average diesel IC engines.

Section 1. Permit Terms and Conditions

1. **Authorization.** The Permittee is authorized to operate the emission units listed in Table 1, subject to the terms and conditions of this permit.

Table 1 - Construction Permit Source Inventory

ID	Source Name	Source Description	Installation Date	Rating/Size (not enforceable)
1	Diesel Generator	GM EMD 16-645 EG 1950 hp	1972	1500 kW
2	Diesel Generator	GM EMD 16-645 EG 1950 hp	1972	1500 kW
3	Diesel Generator	GM EMD 16-645 EG 1950 hp	1972	1500 kW
4	Diesel Generator	Emergency Generator	1990	150 kW
5	Steam Boiler	Seattle Boiler 350 bhp	1993	11.7 MMBtu/hr
6	Steam Boiler	Johnston Bros. Mod 300 bhp	1997	10 MMBtu/hr
7	Incinerator	Solid Waste	2000	200 lb/hr
8	Fish Meal Exhaust	JESMA Model DDF 14/2400S Co-Jet	1989	1800 CMH
9	Burn Basket	Burns trash, galley waste and pallets	--	Open Burn

Note: The nameplate dates on Emission Units 5 & 6 are 1965 and 1980, respectively.

2. **Requirements to Avoid Classification as PSD-Major.** The Permittee shall emit no more than 225 tons per year of nitrogen oxides in order to avoid classification as a PSD major stationary source. The Permittee shall comply with this requested limit as follows:
- 2.1 Burn only diesel fuel in Emission Units 4 through 6, and diesel fuel or diesel/fish oil blends in Emission Units 1 through 3. The Permittee shall use no more than 50 percent fish oil in the diesel/fish oil blend.
 - 2.2 Limit the amount of diesel equivalent fuel burned by Emission Units 1 through 3, as determined in Condition 3.4, to 1,011,981 gallons per 12 month rolling period.
 - 2.3 Limit the diesel fuel burned by Emission Unit 4 to 500 gallons per 12 month rolling period.
 - 2.4 Limit the diesel fuel burned in Emission Units 5 and 6 to 521,000 gallons per 12 month rolling period.
3. **Monitoring.** The Permittee shall monitor Condition 2 as follows:
- 3.1 Install, maintain and operate in good working order a dedicated fuel meter, accurate to within 2 percent, for each of the following groups: Emission Units 1 through 3, Emission Unit 4, and Emission Units 5 and 6.

- 3.2 At the end of each month, monitor and record the volume of diesel fuel consumed during the month by Emission Units 1 through 3, Emission Unit 4, and Emission Units 5 and 6; and the volume of blended fuel consumed during the month by Emission Units 1 through 3.
- 3.3 When fish oil is blended, use a metering system to measure volumes, accurate to two percent, and keep the following records:
- date;
 - volume of fish oil in the blend;
 - volume of diesel fuel in the blend;
 - combined volume of the blend (may be determined by adding b and c), and
 - the percent of fish oil in the resulting blend.
- 3.4 At the end of each month, calculate and record the equivalent volume of diesel fuel consumed by Emission Units 1 through 3 during the month as:

$$\text{Diesel Equivalent} = \text{Diesel Fuel} + (1.123 * \text{Blended Fuel})$$

where:

Diesel Equivalent = the equivalent gallons of diesel fuel burned during the month as limited by Condition 2.2,

Diesel Fuel = the gallons of diesel fuel burned during the month determined by Condition 3.2, and

Blended Fuel = the gallons of blended fuel burned during the month calculated by Condition 3.3d.

- 3.5 At the end of each month, calculate and record the total diesel fuel or diesel equivalent (as applicable) burned during the previous 12-months for each of the following groups: Emission Units 1 through 3, Emission Unit 4, and Emission Units 5 and 6.

4. Reporting:

- 4.1 Report in accordance with Condition 44 of Operating Permit 416TVP01:
- the volume of diesel fuel consumed during each month of the reporting period by Emission Units 1 through 3, Emission Unit 4, and Emission Units 5 and 6 determined by Condition 3.2;

- b. the volume of blended fuel consumed during each month of the reporting period by Emission Units 1 through 3 as determined in Condition 3.2;
 - c. for each blend within the reporting period, the date, the volume of fish oil, the volume of diesel fuel, the combined volume of the blend, and the percent of fish oil in the blend as determined in Condition 3.3;
 - d. the equivalent volume of diesel fuel consumed by Emission Units 1 through 3 during each month of the reporting period as calculated in Condition 3.4; and
 - e. for each month of the reporting period, the total diesel fuel or total diesel equivalent fuel (as applicable) burned during the previous 12-months for each of the following groups: Emission Units 1 through 3, Emission Unit 4, and Emission Units 5 and 6 as calculated in Condition 3.5.
- 4.2 Report as an excess emission or permit deviation in accordance with Condition 42 of Operating Permit 416TVP01 if the total fuel consumption or the ratio of fish oil in the blend exceeds the applicable limits in Condition 2, or if the monitoring, recordkeeping, or reporting requirements in Conditions 3 and 4 are not met.

5. Incinerator Operation:

- 5.1 Monitor and record the monthly volume by weight of municipal waste and commercial-industrial waste combusted in Emission Unit 7.
- 5.2 Monitor and record the monthly hours of operation for Emission Unit 7.
- 5.3 Calculate and record the monthly average throughput of Emission Unit 7 using data collected in Conditions 5.1 and 5.2.
- 5.4 Report in accordance with Condition 44 of Operating Permit No. 416TVP01, the volume by weight of municipal waste and commercial-industrial waste combusted during the period per Condition 5.1, and the monthly average throughput per Condition 5.3.

Section 2. Permit Documentation

December 1, 2003	Permit Request and Application
May 13, 2004	E-mail from Tom Turner (DEC) to Michael Clutter (Icicle) for completeness review, add conditions not listed and requesting source test data.
May 21, 2004	Letter from Michael Clutter (Icicle) to Tom Turner (DEC) to answer May 13, 2004 e-mail.